

**ABSTRACT OF THE DISCLOSURE**

The present invention relates to pharmaceutical/immunogenic compositions and methods for inducing an immune response against tumour-related antigens. More specifically, the invention relates to non-human prostate-specific antigens, more precisely to the non-human prostate-specific P501S, which can be used as xenogeneic antigen in prostate cancer vaccine therapy and as diagnostic agents for prostate tumours in humans, to immunogenic compositions containing them, to methods of manufacture of such compositions and to their use in medicine. Methods for formulating vaccines for immunotherapeutically treating P501S-expressing prostate tumors, prostatic hyperplasia, and prostate intraepithelial neoplasia (PIN) are also provided.